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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/435,034	11/05/1999	ITARU NISHIZAWA	501.37841X00	4679

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EXAMINER

WASSUM, LUKE S

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 12/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/435,034	NISHIZAWA ET AL.
	Examiner	Art Unit
	Luke S. Wassum	2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 September 2002 .

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 35-37 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 35-37 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____ .

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) Interview Summary (PTO-413) Paper No(s) _____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____ .

DETAILED ACTION

Response to Amendment

1. The Applicants' amendment, filed 19 September 2002, has been received, entered into the record, and considered.
2. As a result of the amendment, all pending claims 1-34 have been canceled, and new claims 35-37 have been added. Claims 35-37 are now presented for examination.

Drawings

3. Applicants' corrected drawings, filed 19 September 2002, have been received and entered into the record.
4. The received drawings are informal. The submission of formal replacement drawings, incorporating the changes submitted in the corrected drawings, and also correcting those deficiencies noted on for PTO-948 Draftsman's Patent Drawing Review, sent with the first Office action, paper number 7, will be required upon allowance of the application.

Specification

5. As a result of the amendments to the specification, the pending objections to the specification are withdrawn.
6. The disclosure is objected to because of the following informalities:
On page 3, line 12 of the specification, there is a typographical error "ma(4e".

Appropriate correction is required.

Claim Objections

7. Claims 36 and 37 are objected to because of the following informalities:

In independent claim 36, there appears to be a typographical error. When compared to the similar claim 35, the limitation regarding the query processing unit is missing.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rabinovich** (U.S. Patent 6,256,675) in view of **Olson et al.** (U.S. Patent 5,995,980) in view of **Hammond** (U.S. Patent 5,758,337).

11. Regarding claims 35-37, **Rabinovich** teaches a data warehouse system, method and recording medium substantially as claimed, comprising:

- a) a plurality of client devices (see Requester 109 in Figure 1);
- b) at least one server (see hosts 103, 104 and 105 in Figure 1);
- c) at least one data collector for collecting data requested by the user (see discussion of Request Distributor, col. 4, lines 40-65);
- d) a network (see network 102 in Figure 1);

said data collector including:

- i) a client management unit for managing at least one client device (see discussion of Request Distributor, col. 4, lines 40-65);
- ii) a query analysis unit for analyzing a request from said client device (see discussion of Request Distributor, col. 4, lines 40-65);
- iii) a replica creation request analysis unit for analyzing each replica creation request from the client device (see discussion of the replica placement decision making process, col. 8, line 32 through col. 9, line 23);
- iv) a communication control unit for selecting a procedure for accessing at least one of said servers according to analysis result from said query analysis unit (see discussion of Request Distributor, col. 4, lines 40-65); and

v) a replica creation management unit for creating a replica according to an analyzed creation request (see discussion of the replica placement decision making process, col. 8, line 32 through col. 9, line 23); and said server including:

- i) a communication control unit for receiving a query analysis result transmitted from at least one of a plurality of said data collectors (see discussion of Request Distributor, col. 4, lines 40-65);
- ii) a query processing unit for searching the database of each server and creating a response to said received query analysis result (see discussion of Request Distributor, col. 4, lines 40-65); and
- iii) means for effecting control so that at least either said server or said data collector can select whether to deliver data under the control of said server or said data collector (see discussion of Request Distributor, col. 4, lines 40-65).

Rabinovich does not explicitly teach an implementation of the data warehouse system where the objects correspond to databases.

Olson et al., however, teaches a data warehouse system where the objects correspond to databases, including:

- a) at least one client device (see col. 5, lines 61-67; see also User Clients 24₁, 24_{n-1} and 24_n in Figure 1);
- b) at least one server (see col. 5, lines 55-60; see also Central Computer 11 in Figure 1);

- c) at least one data collector for collecting data requested by the user (see col. 6, lines 28-56; see also Figure 2; see also col. 8, lines 25-67);
- d) a database for storing data collected by the data collector (see col. 5, lines 61-67; see also databases 22₁, 22_{n-1} and 22_n in Figure 1);
- e) a network (see col. 3, lines 50-52); and

wherein each replica is managed so that a replica can be shared among cooperative data collectors when processing said query which corresponds the content of said created replica to information related to the location of said replica stored in said database (see col. 1, lines 21-24; see also col. 3, lines 34-36; see also col. 7, line 19 through col. 8, line 25; see also Figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the replica management and query distribution functions as taught by **Rabinovich** to a partially replicated database system such as that taught by **Olson et al.**, since replicated databases reduce contention for access to a primary database, as well as providing a backup in the event of media failure (see col. 1, lines 17-26).

Neither **Rabinovich** nor **Olson et al.** explicitly teaches a system wherein definitions of the partial replicas are stored in a table.

Hammond, however, teaches a system wherein definitions of the partial replicas are stored in a table (see Figure 8; see also col. 6, line 24 through col. 7, line 60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a table to define the partial replicas, since storing information defining each partial replica in a table allows the system to manage the creation and synchronization of data between the master database and the partial replicas (see col. 6, lines 24-65).

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 703-305-5706. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 703-305-9790. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 703-746-5658.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Luke S. Wassum
Art Unit 2177

lsw
November 26, 2002


JEAN R. HOMERE
PRIMARY EXAMINER